No. 7200083

THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

Purdue University
Agricultural Experiment Station

Whereas, THERE HAS BEEN PRESENTED TO THE

Secretary of Agriculture

AN APPLICATION REQUESTING A CERTIFICATE OF PROTECTION FOR AN ALLEGED NOVEL VARIETY OF SEXUALLY REPRODUCED PLANT, THE NAME AND DESCRIPTION OF WHICH ARE CONTAINED IN THE APPLICATION AND EXHIBITS, A COPY OF WHICH IS HEREUNTO ANNEXED AND MADE A PART HEREOF, AND THE VARIOUS REQUIREMENTS OF LAW IN SUCH CASES MADE AND PROVIDED HAVE BEEN COMPLIED WITH, AND THE TITLE THERETO IS, FROM THE RECORDS OF THE PLANT VARIETY PROTECTION OFFICE, IN THE APPLICANT(S) INDICATED IN THE SAID COPY, AND WHEREAS, UPON DUE EXAMINATION MADE, THE SAID APPLICANT(S) IS (ARE) ADJUDGED TO BE ENTITLED TO A CERTIFICATE OF PLANT VARIETY PROTECTION UNDER THE LAW.

NOW, THEREFORE, THIS CERTIFICATE OF PLANT VARIETY PROTECTION IS TO GRANT UNTO THE SAID APPLICANT(S) AND THE SUCCESSORS, HEIRS OR ASSIGNS OF THE SAID APPLICANT(S) FOR THE TERM OF seventeen YEARS FROM THE DATE OF THIS GRANT, SUBJECT TO THE PAYMENT OF THE REQUIRED FEES AND PERIODIC REPLENISHMENT OF VIABLE BASIC SEED OF THE VARIETY IN A PUBLIC REPOSITORY AS PROVIDED BY LAW, THE RIGHT TO EXCLUDE OTHERS FROM SELLING THE VARIETY, OR OFFERING IT FOR SALE, OR REPRODUCING IT, OR IMPORTING IT, OR EXPORTING IT, OR USING IT IN PRODUCING A HYBRID OR DIFFERENT VARIETY THEREFROM, TO THE EXTENT PROVIDED BY THE PLANT VARIETY PROTECTION ACT. THE UNITED STATES SEED OF THIS VARIETY (1) SHALL BE SOLD BY VARIETY NAME ONLY AS A CLASS OF CERTIFIED SEED AND (2) SHALL CONFORM TO THE NUMBER OF GENERATIONS REQUIRED BY THE OWNER OF THE RIGHTS. (84 STAT. 1542, AS AMENDED, 7 U.S.C. 2321 ET SEQ.)

SOYBEAN

Amsoy 71

In Testimony Whereof, I have hereunto set my hand and caused the seal of the Plant Variety Protection Office to be affixed at the City of Washington this first day of August in the year of our Lord one thousand nine hundred and seventy three

Attest:

L. R. Rollins
Commissioner
Plant Variety Protection Office
Grain Division
Agricultural Marketing Service

Earl L. Butz
Secretary of Agriculture

FORM GR-470
(2-12-71)

UNITED STATES DEPARTMENT OF AGRICULTURE
CONSUMER AND MARKETING SERVICE
GRAIN DIVISION
HYATTSVILLE, MARYLAND 20782

FORM APPROVED
OMB NO. 40-R3712

APPLICATION FOR PLANT VARIETY PROTECTION CERTIFICATE

INSTRUCTIONS: *See Reverse.*

1. VARIETY NAME OR TEMPORARY DESIGNATION	2. KIND NAME	FOR OFFICIAL USE ONLY	
Amsoy 71	Soybeans	PVPO NUMBER 72083	
3. GENUS AND SPECIES NAME	4. FAMILY NAME *(Botanical)*	FILING DATE 2/3/72	TIME 1:30 P.M.
Glycine max	Leguminosae		
	5. DATE OF DETERMINATION	FEE RECEIVED	CHARGES
	August 5, 1970	$ 250	

6. NAME OF APPLICANT(S)	7. ADDRESS *(Street and No. or R.F.D. No., City, State, and ZIP Code)*	8. TELEPHONE AREA CODE AND NUMBER
Purdue University Agricultural Experiment Station	Agricultural Experiment Station Purdue University Lafayette, Indiana 47907	317-749-2461

9. IF THE NAMED APPLICANT IS NOT A PERSON, FORM OF ORGANIZATION: *(Corporation, partnership, association, etc.)*	10. STATE OF INCORPORATION	11. DATE OF INCORPORATION
Land Grant University	Established by Indiana Statute 1869	May 6, 1869

12. Name and mailing address of applicant representative(s), if any, to serve in this application and receive all papers:

Dr. H. H. Kramer, Director
Agricultural Experiment Station
Purdue University
Lafayette, Indiana 47907

13. CHECK BOX BELOW FOR EACH ATTACHMENT SUBMITTED:

- [X] 12A. Exhibit A, Origin and Breeding History of the Variety *(See Section 52, P.L. 91-577)*
- [X] 12B. Exhibit B, Botanical Description of the Variety
- [X] 12C. Exhibit C, Objective Description of the Variety
- [X] 12D. Exhibit D, Data Indicative of Novelty
- [X] 12E. Exhibit E, Statement of the Basis of Applicant's Ownership

The applicant declares that a viable sample of basic seed of this variety will be deposited upon request before issuance of a certificate and will be replenished periodically in accordance with such regulations as may be applicable. *(See Section 52, P.L. 91-577).*

14A. Does the applicant(s) specify that seed of this variety be sold by variety name only as a class of certified seed? *(See Section 83(a), P.L. 91-577) (If "Yes," answer 14B and 14C below.)* [X] YES [ ] NO

14B. Does the applicant(s) specify that this variety be limited as to number of generations?	14C. If "Yes," to 14B, how many generations of production beyond breeder seed?
[X] YES [ ] NO	Three

Applicant is informed that false representation herein can jeopardize protection and result in penalties.

The undersigned applicant(s) of this sexually-reproduced novel plant variety believes that the variety is distinct, uniform, and stable as required in Section 41 and is entitled to protection under the provisions of Section 42 of the Plant Variety Protection Act (P.L. 91-577).

Jan 28 1972
(DATE)

H H Kramer
(SIGNATURE OF APPLICANT)

(DATE)

(SIGNATURE OF APPLICANT)

#72083

EXHIBIT A

Origin and Breeding History of the Variety

Amsoy 71

Amsoy 71 soybean [Glycine max (L.) Merr.] is the composite of four F_4 lines from the backcross Amsoy^8 × C1253 (Phytophthora rot resistant selection from Blackhawk × Harosoy).

The original cross, designated CX407, was made in 1963 by Dr. A. H. Probst, USDA Agronomist, at the Purdue Agricultural Experiment Station, Lafayette, Indiana. Backcrosses BC_1 - BC_7 were made from 1963-1965 in both the greenhouse and the field. Phytophthora rot inoculations during this period and subsequently were made by F. A. Laviolette and Dr. K. L. Athow, Purdue Botany and Plant Pathology Department.

The F_1 and F_2 of Amsoy^8 × C1253 were grown in 1966. Seed from sixty-eight homozygous phytophthora resistant F_2 plants were planted in F_3 plant rows in Puerto Rico in 1966 by Dr. E. E. Hartwig, USDA, Stoneville, Mississippi and harvested by Dr. C. A. Brim, USDA, North Carolina State University.

Sixty-one lines returned from Puerto Rico were grown in a replicated test at Lafayette, Indiana, in 1967. Twelve of these were retained for further testing. Also, three F_4 plants were selected from each of these twelve lines.

The twelve lines were grown in a 1968 Cooperative Amsoy BC_7 test at Ames, Iowa, by Dr. W. R. Fehr; DeKalb, Illinois, by Dr. R. L. Cooper; Harrow, Ontario, by Dr. R. I. Buzzell; and Lafayette and Bluffton, Indiana, by Dr. J. R. Wilcox. In addition, the three F_4 plant selections from each of these 12 lines were grown in 18-foot plant rows and rechecked for phytophthora rot resistance.

Four lines, CX407BC_7-50, -53, -310, and -326 were entered in Uniform Test II of the Uniform Soybean Tests Northern States conducted by the U. S. Regional Soybean Laboratory, Urbana, Illinois. The tests were grown in California, Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, Ohio, South Dakota, Wisconsin, and in Ontario, Canada. There were no consistent detectable differences among any of these four lines in any year of testing. Seed from the three F_4 plant rows was composited within each of the above lines and the four lots consisting of CX407BC_7-50, -53, -310, and -326 were multiplied separately on the Purdue Agronomy Farm to produce breeders seed.

Since there were no detectable phenotypic differences among the four lots, the seed was composited and this breeders seed divided among the releasing states of Illinois, Indiana, Iowa, Michigan, Minnesota, Missouri, Nebraska, Ohio, South Dakota, and Ontario, Canada, in 1970. The variety was named Amsoy 71 on August 5, 1970.

#72083

EXHIBIT B

Botanical Description of the Variety

Amsoy 71

Amsoy 71 soybean is identical to Amsoy with the exception that it is resistant to phytophthora rot and has averaged 5 cm taller than Amsoy. Amsoy 71 is of Group II maturity, has purple flowers, gray pubescence, tan pods, and shiny yellow seeds with yellow hila. Amsoy 71 has medium sized ovate leaves and an indeterminate habit of growth. Amsoy 71 is susceptible to bacterial blight, caused by Pseudomonas glycinea, bacterial pustule, caused by Xanthamonas phaseoli var. sojensis, brown spot, caused by Septoria glycines, frogeye leafspot race 2, caused by Cercospora sojina, brown stem rot, caused by Cephelosporium gregatum, and purple seed stain, caused by Cercospora kikuchii. It is moderately resistant to downy mildew, caused by Peronospora manshurica, and is resistant to Phytophthora rot caused by Phytophthora megasperma var. sojae. Amsoy 71 has a high peroxidase activity in the seed coat, flowers in about 70 days under a 20-hour cool white fluorescent photoperiod, and a hypocotyl length averaging 104 mm after germinating 9 days at 25° C, a critical temperature for differentiating strains.

#72083

FORM GR-470-2
(6-15-72)

UNITED STATES DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
GRAIN DIVISION
HYATTSVILLE, MARYLAND 20782

EXHIBIT C
(Soybean)

OBJECTIVE DESCRIPTION OF VARIETY

SOYBEAN *(GLYCINE MAX)*

INSTRUCTIONS: *See Reverse.*

NAME OF APPLICANT(S)
Purdue University Agricultural Experiment Station

ADDRESS *(Street and No., or R.F.D. No.; City, State, and ZIP Code)*
Agricultural Experiment Station
Purdue Univeristy
West Lafayette, Indiana 47907

FOR OFFICIAL USE ONLY

PVPO NUMBER
72083

VARIETY NAME OR TEMPORARY DESIGNATION
AMSOY 71

Place the appropriate number that describes the varietal character of this variety in the boxes below.

1. SEED SHAPE:
[1] 1 = SPHERICAL 2 = SPHERICAL FLATTENED 3 = ELONGATE 4 = OTHER *(Specify)*

2. SEED COAT COLOR:
[1] 1 = YELLOW 2 = GREEN 3 = BROWN 4 = BLACK 5 = OTHER *(Specify)*
SHADE: [2] 1 = LIGHT 2 = MEDIUM 3 = DARK

3. SEED COAT LUSTER:
[2] 1 = DULL 2 = SHINY

4. SEED SIZE
[1][7] GRAMS PER 100 SEEDS

5. HILUM COLOR:
[2] 1 = BUFF 2 = YELLOW 3 = BROWN 4 = GRAY 5 = IMPERFECT BLACK 6 = BLACK 7 = OTHER *(Specify)*
SHADE: [2] 1 = LIGHT 2 = MEDIUM 3 = DARK

6. COTYLEDON COLOR:
[1] 1 = YELLOW 2 = GREEN

7. LEAFLET SIZE *(See Reverse)*:
[1] 1 = SMALL 2 = MEDIUM 3 = LARGE

8. LEAFLET SHAPE:
[1] 1 = OVATE 2 = OBLONG 3 = LANCEOLATE 4 = ELLIPTICAL 5 = OTHER *(Specify)*

9. LEAF COLOR *(See reverse)*:
[2] 1 = LIGHT GREEN 2 = MEDIUM GREEN 3 = DARK GREEN

10. FLOWER COLOR:
[2] 1 = WHITE 2 = PURPLE 3 = OTHER *(Specify)*

11. POD COLOR:
[1] 1 = TAN 2 = BROWN 3 = BLACK

12: POD SET:
[1] 1 = SCATTERED 2 = CONCENTRATED

13. PLANT PUBESCENCE COLOR:
[1] 1 = GRAY 2 = BROWN 3 = OTHER *(Specify)*
SHADE: [2] 1 = LIGHT 2 = MEDIUM 3 = DARK

14. PLANT TYPES *(See Reverse)*:
[1] 1 = SLENDER 2 = BUSHY 3 = INTERMEDIATE

15. PLANT HABIT:
[2] 1 = DETERMINATE 2 = INDETERMINATE 3 = OTHER *(Specify)*

16. HYPOCOTYL COLOR:
[2] 1 = GREEN 2 = PURPLE

17. SEED PROTEIN:
[ ] 1 = A 2 = B

18. NUMBER OF DAYS TO FLOWERING *(Place a zero in first box (e.g. [0][9]) when days are 9 or less.)*
[4][3]

19. MATURITY GROUP:
[4] 1 = 00 2 = 0 3 = I 4 = II 5 = III 6 = IV 7 = V 8 = VI 9 = VII 10 = VIII

20. SIZE OF 10 DAY OLD SEEDLING GROWN UNDER CONSTANT LIGHT *(Growth Chamber)* **AT 25° C.** *(Place a zero in first box (e.g. [0][2]) when size is 9 mm. or less.)* 16 hour daylength

[0][5][0] MM. LENGTH OF SEEDLING
[1][9] MM. LENGTH OF COTYLEDON
[1][2] MM. WIDTH OF COTYLEDON

21. DISEASE: *(Enter 0 = Not Tested; 1 = Susceptible; 2 = Resistant)*

[1] BACTERIAL PUSTULE	[1] SOYBEAN CYST	[1] DOWNY MILDEW	[1] PURPLE STAIN	[1] POD AND STEM BLIGHT	[0] ROOT KNOT
[1] FROGEYE	[0] STEM CANKER	[2] PHYTO-PHTHORA	[1] BROWN STEM ROT	[0] TARGET SPOT	[1] BROWN SPOT
[1] BUD BLIGHT	[0] WILDFIRE	[1] RHIZOCTONIA ROT	[ ] OTHER *(Specify)*		

FORM GR-470-2 (REVERSE)

22. INDICATE WHICH VARIETY MOST CLOSELY RESEMBLES THAT SUBMITTED.

CHARACTER	NAME OF VARIETY	CHARACTER	NAME OF VARIETY
Plant shape	Amsoy	Petiole angle	Amsoy
Leaf shape	Amsoy	Seed size	Amsoy
Leaf color	Amsoy	Seed shape	Amsoy
Leaf surface	Amsoy	Seedling pigmentation	Amsoy

23. GIVE DATA FOR SUBMITTED AND SIMILAR STANDARD VARIETY:

VARIETY	NO. OF DAYS TO MATURITY	LODGING SCORE	PLANT HEIGHT	LEAF SIZE		CONTENT		AVERAGE NO. OF PODS PER PLANT	IODINE NO.
				Width	Length	Protein	Oil		
Submitted	118	2.5	46"			40.9	22.4 %		
Name of similar variety Amsoy	118	2.5	45"			40.9	22.2		

INSTRUCTIONS

GENERAL: The following publications may be used as a reference aid for completing this form:

1. Scott, Walter O. and Samuel R. Aldrich, 1970, Modern Soybean Production, The Farmer Quarterly.
2. Norman, A. G., 1963, The Soybean: Genetics, Breeding, Physiology, Nutrition, Management.
3. McKie, J. W., and K. L. Anderson, 1970, The Soybean Book.

LEAF COLOR: Nickerson's or any recognized color fan may be used to determine the leaf color of the described variety. The following Soybean varieties may be used as a guide to identify the colors listed on the form.

COLOR	VARIETY
Light Green	"Ada"
Medium Green	"Wilkin"
Dark Green	"Swift"

LEAF SIZE: The following varieties may be used as a guide to identify the relative size leaves.

SIZE	VARIETY
Small	"Amsoy"
Medium	"Bonus"
Large	"Anoka"

PLANT TYPE: The following varieties may be used as a guide to identify the plant type.

TYPE	VARIETY
Slender	"Vansoy"
Intermediate	"Wirth"
Bushy	"Adelphia"

#72083

EXHIBIT D

Data Indicative of Novelty

Amsoy 71

Amsoy 71 can be distinguished from other Group II varieties on the basis of its indeterminate growth habit, flower color, pubescence color, pod color, seed coat luster, seed coat color, hilum color, and reaction to Phytophthora megasperma var. sojae. Amsoy 71 most closely resembles the variety Amsoy, however, Amsoy 71 is resistant and Amsoy is susceptible to phytophthora rot and these two varieties can be distinguised on this basis.

#72083

PURDUE UNIVERSITY
AGRICULTURAL EXPERIMENT STATION
LAFAYETTE, INDIANA 47907

EXHIBIT E RJS

OFFICE OF THE DIRECTOR

June 4, 1973

Robert J. Snyder, Examiner
Plant Variety Protection Office
Agricultural Marketing Service
U. S. Department of Agriculture
6525 Belcrest Road
Hyattsville, Maryland 20782

Dear Mr. Snyder:

To answer the question you raised in your letter of May 29, I quote from the Master Memorandum of Understanding between the Indiana Agricultural Experiment Station and the U. S. Department of Agriculture, Agricultural Research Service, relative to cooperative research.

Section C, paragraph 6.b. reads as follows:

"b. Plants, seeds, and plant materials used in this cooperative undertaking will be provided by the parties from time to time as mutually agreed upon. Such plants, seeds, and plant materials produced hereunder as may not be needed in this undertaking but may be needed in other research conducted by either party, shall be available to such party. New varieties or strains obtained through the cooperation shall be distributed for commercial growing, as and when mutually agreed upon. All plants, seeds, and plant materials produced and not needed in this undertaking or in other research, as provided above, shall be the property of the Agricultural Experiment Station which agrees to make to the Agricultural Research Service such reports of disposition as may be mutually agreed upon."

This memorandum of agreement was signed by E. L. Butz for the Experiment Station and by B. T. Shaw for the Agricultural Research Service and became effective August 1, 1957.

New varieties constitute plant materials produced and no longer needed "in this undertaking" since the undertaking is complete with the release of each new variety. The varieties 'Cutler 71', 'Amsoy 71' and 'Bonus' were distributed to commercial growers as mutually agreed upon, (as documented in the release statements which also constitute our report to ARS of disposition) at which point they become the "property of the Agricultural Experiment Station" as specifically stated in the memorandum of understanding.

continued - - - -

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The memorandum provides that it "shall continue indefinitely but may be modified by mutual agreement between the parties in writing and may be discontinued at the request of either party. Requests for termination or any major change shall be submitted to the other party not less than 60 days in advance of the effective date desired." No change has been requested by either party since July 1, 1957.

We can supply the complete memorandum of understanding if you feel it necessary. However, the section quoted is the only one which bears on the question you raised in your letter of 29 May.

The memorandum thus states explicitly that the USDA does not wish to participate in ownership of new varieties and has released its principal rights in the varieties to the Agricultural Experiment Station of Purdue University.

Very truly yours,

H. H. Kramer

Herbert H. Kramer
Director

jl

PV # 7200083

SOYBEAN

'AMSOY 71'

13A. Exhibit A:

'Amsoy 71' is the composite of four F_4 lines from the backcross 'Amsoy' x 'C1253' (phytophthora rot resistant selection from 'Blackhawk' x 'Harosoy'). Phytophthora inoculations were made in each backcross generation. Tests were conducted on each of the four F_4 lines by the U.S. Regional Soybean Laboratory, Urbana, Illinois. There were no consistent detectable differences among any of the four lines in any year of testing. The variety was named 'Amsoy 71' on August 5, 1970.

13B. Exhibit B:

'Amsoy 71' is identical to 'Amsoy' with the exception that it is resistant to phytophthora rot and has averaged 5 cm. taller than 'Amsoy.' It is moderately resistant to downy mildew. 'Amsoy 71' has a high peroxidase activity in the seed coat, flowers in about 70 days under a 20-hour cool white fluorescent photoperiod, and a hypocotyl length averaging 104 mm. after germination of 9 days at 25° C., a critical temperature for differentiating strains.

13C. Exhibit C:

Seed shape	:	Spherical
Seed color	:	Medium yellow
Seed luster	:	Shiny
Seed size	:	17 g/100 seeds
Hilum color	:	Medium yellow
Cotyledon color	:	Yellow
Protein content	:	40.9% (Amsoy 40.9)
Oil content	:	22.4% (Amsoy 22.4)
Leaflet size	:	Small
Leaflet shape	:	Ovate
Leaflet color	:	Medium green
Flower color	:	Purple
Pod color	:	Tan
Plant pubescence color	:	Gray
Plant habit	:	Slender and indeterminate

13C. Exhibit C (continued):

Hypocotyl color	:	Purple
No. days to flowering	:	43
Maturity group	:	II - 118 days
Lodging score	:	2.5 (Amsoy 2.5)
Height	:	117 cm. (Amsoy 114)
Seedling length	:	50 mm.
Cotyledon length	:	19 mm.
Cotyledon width	:	12 mm.
Disease	:	Resistant to phytophthora rot Susceptible to bacterial pustule, soybean cyst, downy mildew, purple stain, pod and stem blight, frogeye, brown stem rot, brown spot, bud blight, rhizoctonia rot

13D. Exhibit D:

'Amsoy 71' most closely resembles the variety 'Amsoy,' however, 'Amsoy 71' is resistant and 'Amsoy' is susceptible to phytophthora rot. 'Amsoy 71' is distinguished from other Group II varieties on the basis of its indeterminate growth habit, flower color, pubescence color, pod color, seed coat luster, seed coat color, hilum color, and reaction to Phytophthora megasperma var. sojae.

13E. Exhibit E:

'Amsoy 71' was developed by and from crosses made at the Purdue University Agricultural Experiment Station. According to the applicant, the Master Memorandum of Understanding between the Indiana Agricultural Experiment Station and the U.S. Department of Agriculture, Agricultural Research Service, states explicitly that the USDA does not wish to participate in ownership and has released its principal rights in this variety to the A.E.S. of Purdue University.

United States Department of Agriculture
Agricultural Research Service
Northern Plains Area
National Seed Storage Laboratory
Ft. Collins, Colorado
80523
Telephone: 303 484-0402
Fax: 303 221-1427

August 30, 1990

Dr. K. H. Evans, Commisioner
Plant Variety Protection Office
Nal Building, Rm. 500
10301 Baltimore Blvd.
Beltsville, MD 20705-2351

Dear Dr. Evans:

Subject: Expiration of Protection and Transfer of Seed Samples

As you requested, the National Seed Storage Laboratory has transfered the following samples to conventional storage and marked all records and GRIN, showing the samples expired.

PV #	VARIETY NAME	ACTION TAKEN
SOYBEAN		
7100016	SRF 100	Expired, transfer to NSSL 8-30-90
7100019	SRF 400	Expired, transfer to NSSL 8-30-90
7200077	SRF 450	Expired, transfer to NSSL 8-30-90
7200082	Cutler 71	Expired, transfer to NSSL 8-30-90
7200083	Amsoy 71	Expired, transfer to NSSL 8-30-90
7200086	SRF 150	Expired, transfer to NSSL 8-30-90
7200126	Bonus	Expired, transfer to NSSL 8-30-90
7300010	Buccaneer	Expired, transfer to NSSL 8-30-90

Sincerely,

Toni Dawn Pisano

TONI PISANO
Computer Assistant